

CBCS SCHEME

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15CS754

Seventh Semester B.E. Degree Examination, July/August 2021

Storage Area Networks

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions.

- 1 a. Define Datacenter. Explain the key characteristics of Datacenter. (05 Marks)
b. With a neat diagram, explain how storage centric IT Architecture can overcome the limitations of severcentric IT architecture. (05 Marks)
c. Illustrate read and write operations in cache. (06 Marks)
- 2 a. Describe RAID levels with reference to RAID0, RAID1, RAID3 and RAID6. (06 Marks)
b. What is file system? Illustrate the process of mapping user files to the disk storage subsystem with an LVM. (05 Marks)
c. With a neat diagram, explain the types of Intelligent storage system. (05 Marks)
- 3 a. List the basic interconnectivity options that are supported by FC architecture. Explain FC-AL and FC-SW transmission in detail. (06 Marks)
b. Describe in detail different topologies of iSCSI connectivity. (06 Marks)
c. Define zoning. Explain different categories of zoning. (04 Marks)
- 4 a. Define NAS. Explain its benefits and common implementation methods. (08 Marks)
b. Illustrate the steps involved in storage and retrieval of data objects in Object based Storage Device (OSD). (08 Marks)
- 5 a. What is Business Continuity? With a neat diagram, explain the different stages in BC planning Life cycle. (08 Marks)
b. With a neat diagram, explain different Backup Topologies. (08 Marks)
- 6 a. What is Local Replication? With a neat diagram, explain Host based and Network Based Local Replication. (08 Marks)
b. What is Data Deduplication? Explain the Data Deduplication Implementation methods for backup. (04 Marks)
c. Describe in detail cascade / multihop Three-site Replication methods. (04 Marks)
- 7 a. Define Cloud Computing. Explain the characteristics and benefits of Cloud Computing. (08 Marks)
b. Illustrate the deployment models for Cloud Infrastructure. (08 Marks)
- 8 a. List and explain different Cloud Service models. (06 Marks)
b. Describe in detail the layers in Cloud Computing Infrastructure. (06 Marks)
c. Explain different key considerations for Cloud Adoption. (04 Marks)
- 9 a. Briefly explain the different storage security domains. (08 Marks)
b. Illustrate the various steps in Kerberos Authorization process. (08 Marks)
- 10 a. With a neat diagram, explain Information Lifecycle Management (ILM). (05 Marks)
b. Explain the basic security Implementations' for IPSAN with CHAP authentication. (05 Marks)
c. What is the need of Storage Tiering? Explain its types. (06 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.